## LINCOLN UNIVERSITY OF ESWATINI

*Faculty of Medicine, Dentistry and Allied Health Sciences*

# PROGRAMME SUBMISSION DOCUMENT

## Master of Medicine (MMed)

**Specialisations: Paediatrics • Obstetrics & Gynaecology • Anaesthesiology • Community Medicine • Internal Medicine**

**Duration: 4 years | Total Credits: 480 (per specialisation) | ESQF Level 9 (Master's / Specialist Professional Degree)**

Prepared for submission to the Eswatini Higher Education Council (ESHEC)

September 2026

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## ESHEC STANDARDS COMPLIANCE MATRIX

This matrix maps each of ESHEC's 11 Programme Evaluation Standards to the section(s) of this document that address it. Items requiring an institutional artefact that only LUE can supply (signed MOUs, named specialist staff CVs, professional-body endorsement, budget figures) are marked “Pending Institutional Evidence” rather than asserted as complete.

| ESHEC Standard | Document Section(s) | Status |
|---|---|---|
| 1. Programme Mission Statement | Mission Statement | Addressed |
| 2. Programme Design and Development | Rationale; Programme Design, Articulation and Quality Assurance of Design; Curriculum Mapping | Addressed — professional-body/college endorsement Pending Institutional Evidence |
| 3. Teaching and Learning Strategy | Teaching Methods | Addressed |
| 4. Assessment and Learner Attainment | Assessment Methods | Addressed |
| 5. Internal Quality Assurance Mechanism | Internal Quality Assurance Mechanism | Addressed — tracer-study data Pending (programme not yet operational) |
| 6. Physical Resources and Infrastructure | Physical Resources and Infrastructure | Addressed — named specialist clinical-training sites and signed MOUs Pending Institutional Evidence |
| 7. Staffing | Staffing | Addressed — named specialist consultant list and CVs Pending Institutional Evidence |
| 8. Learner Support Services | Learner Support Services | Addressed |
| 9. Learner Admission to a Programme | Entry Requirements and Admissions Framework | Addressed |
| 10. Financial Resources | Financial Resources | Addressed — costed budget and enrolment plan Pending Institutional Evidence (LUE Finance Office) |
| 11. Informed and Ethical Use of Technology | Informed and Ethical Use of Technology | Addressed |

“Pending Institutional Evidence” items are listed together in the Recommendations at the end of this document.

# MISSION STATEMENT

The LUE Master of Medicine (MMed) programme is dedicated to producing Eswatini's own specialist physicians — in Paediatrics, Obstetrics & Gynaecology, Anaesthesiology, Community Medicine and Internal Medicine — through structured, supervised postgraduate clinical training and research. The programme responds directly to the Ministry of Health's own finding that specialist and physician cadres carry the largest relative workforce gap in Eswatini, and to the near-total absence of local postgraduate medical training capacity in the country and much of the immediate region.

Lincoln University of Eswatini's Faculty of Medicine, Dentistry and Allied Health Sciences builds its MMed programme on three pillars:

### 1. Specialist Clinical Excellence

- Structured, progressively independent clinical training across four years, building directly on the competencies established in LUE's MBBS (ESQF Level 8).
- Rigorous specialist-level assessment, including continuous clinical assessment, structured clinical/oral examinations, and a research dissertation.
- A curriculum contextualised throughout to Eswatini's specialist disease priorities — HIV/NCD comorbidity, maternal health, paediatric HIV, and district health management.

### 2. Local Retention of Specialist Capacity

- Directly addresses the Ministry of Health's 2023 Health Labour Market Analysis (HLMA) finding that specialist cadres carry the largest relative workforce gap.
- Removes the extended foreign-training pathway associated with elevated non-return risk, consistent with the same rationale established for LUE's MBBS.
- Builds Eswatini's own specialist academic and clinical-teaching capacity for the next generation of medical trainees.

### 3. Research and Health-System Contribution

- Every trainee completes an independent research dissertation addressing a question relevant to Eswatini's health priorities.
- Graduates are prepared to lead clinical departments, teach undergraduate and postgraduate trainees, and contribute to national health policy and clinical governance.

# RATIONALE FOR THE PROGRAMME

LUE's MMed programme is purposefully designed to prepare general medical officers for specialist practice, responding directly to evidence in LUE's MBBS Needs Assessment Report and to the specific specialist-workforce gaps documented by the Ministry of Health.

## National Needs (Eswatini)

- Specialist Workforce Gap: The Ministry of Health's 2023 Health Labour Market Analysis found that existing supply meets only 48.1% of documented health-workforce need, with the largest relative gaps specifically in specialist and physician cadres — precisely the gap this MMed programme addresses.
- No Local Postgraduate Medical Training: Eswatini has no domestic postgraduate medical (MMed) training programme; Emaswati doctors wishing to specialise must currently train abroad, compounding the same migration/non-return risk already documented for undergraduate medical training (41% of the health workforce intends to migrate, per the HLMA).
- Specialty-Specific Priorities: Paediatrics (paediatric HIV and malnutrition burden), Obstetrics & Gynaecology (maternal mortality and rural obstetric access), Anaesthesiology (surgical-safety capacity), Community Medicine (district health management and UHC delivery), and Internal Medicine (the dual HIV/NCD comorbidity burden) are each independently documented national priorities in LUE's MBBS Needs Assessment Report.
- Sustainable Undergraduate Pipeline: LUE's own MBBS (ESQF Level 8) provides the required aligned undergraduate base for this postgraduate programme, consistent with ESHEC Standard 2's requirement that postgraduate programmes be introduced only where an appropriate, aligned undergraduate programme exists.

## Regional Needs (SADC)

- Specialist shortages are common across SADC member states; regional postgraduate medical training capacity (e.g., University of Zambia, University of Botswana MMed programmes) is limited relative to demand.
- A locally accredited MMed provides Eswatini and neighbouring small states without postgraduate medical training capacity (e.g., Lesotho) with a regional training option.

## Purpose of the Programme

- To produce safe, competent, ethical specialist physicians in Paediatrics, Obstetrics & Gynaecology, Anaesthesiology, Community Medicine and Internal Medicine, equipped for consultant-level practice within Eswatini's health system.
- To directly close the specialist-workforce gap documented in the Ministry of Health's own workforce analysis.
- To build sustainable local capacity for clinical teaching, research and health-system leadership.

# PROGRAMME DESIGN, ARTICULATION AND QUALITY ASSURANCE OF DESIGN

This section addresses ESHEC Standard 2 (Programme Design and Development).

## Alignment with an Existing Undergraduate Programme

*ESHEC Standard 2 states that "the introduction of a postgraduate programme is contingent upon the existence of appropriate undergraduate programmes that are aligned with the intended outcomes of the postgraduate qualification." This MMed programme is built directly on LUE's own Bachelor of Medicine and Bachelor of Surgery (MBBS, ESQF Level 8), submitted to ESHEC as a companion programme. Entry to the MMed requires the MBBS (or an equivalent recognised medical degree) plus internship and registration, and the MMed's PLOs build directly on the MBBS PLOs (see Programme Learning Outcomes, below).*

## Needs Assessment and Benchmarking

- This programme's design is directly informed by the specialist-workforce evidence in LUE's MBBS Needs Assessment Report.
- Benchmarking against regional MMed programmes (University of Zambia, University of Botswana) will be documented in a dedicated MMed Needs Assessment Report, to be finalised alongside professional-body consultation.
- Stakeholder consultation with the Ministry of Health, relevant specialist colleges and hospital departments is required before final ESHEC submission (see Recommendations).

## Professional Body / College Endorsement

*As a specialist medical qualification, the MMed (in each of its five specialisations) requires endorsement by the relevant national medical regulatory body and, where applicable, the relevant regional specialist college (e.g., the College of Medicine of South Africa (CMSA) fellowship-equivalence pathway or an ECSA-HC-recognised equivalent), prior to final ESHEC accreditation. LUE will submit the curriculum for professional-body/college review in parallel with this ESHEC application. This is recorded as "Pending Institutional Evidence" in the Compliance Matrix above.*

## Research Integration

Research is integrated as a core, credit-bearing requirement across all five specialisations: Research Methodology and Biostatistics for Postgraduate Study (Year 1) builds advanced research literacy, and the Year 3–4 Research Dissertation (50 credits across two modules) requires each trainee to complete an independent, supervised research study addressing a question relevant to their specialty and to Eswatini's health priorities.

## Periodic Review and Stakeholder Satisfaction

- The programme and each specialisation's curriculum will be formally reviewed at least every four years, or sooner upon significant regulatory or professional-college change, through LUE's Faculty Quality Assurance Committee.
- LUE commits to conducting trainee and stakeholder (specialist-college/employer) satisfaction surveys at least annually once the programme is operational.

## PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

Within a few years of graduation, LUE MMed graduates (across all five specialisations) are expected to be:

- PEO1 — Safe, competent and ethical specialist physicians who apply advanced, evidence-based clinical knowledge and skill in their chosen discipline.
- PEO2 — Practitioners capable of independent, consultant-level clinical decision-making, including in complex and emergency presentations specific to their specialty.
- PEO3 — Clinical leaders and educators who supervise, teach and mentor undergraduate medical students and junior doctors.
- PEO4 — Researchers who contribute new knowledge relevant to Eswatini's health priorities through rigorous, independently conducted research.
- PEO5 — Health-system contributors who participate in clinical governance, departmental management and, where relevant, national health policy.

## PROGRAMME LEARNING OUTCOMES (PLOs)

The following PLOs apply across all five MMed specialisations, building directly on the MBBS PLOs (PLO1–PLO10 of the MBBS programme):

| PLO | Description |
|---|---|
| PLO1 – Advanced Specialist Knowledge | Apply advanced, specialty-specific clinical knowledge to complex presentations, building on MBBS PLO1 (Medical Knowledge). |
| PLO2 – Advanced Clinical and Procedural Skills | Perform specialty-specific clinical and procedural skills independently, building on MBBS PLO2 (Clinical Skills). |
| PLO3 – Independent Diagnostic and Therapeutic Reasoning | Formulate and justify management plans for complex and emergency presentations without routine supervision, building on MBBS PLO3. |
| PLO4 – Specialist Communication | Communicate complex clinical information to patients, families, colleagues and other specialties, building on MBBS PLO4. |
| PLO5 – Professionalism, Ethics and Governance | Demonstrate advanced ethical reasoning and contribute to departmental clinical governance, building on MBBS PLO5. |
| PLO6 – Leadership and Interprofessional Collaboration | Lead multidisciplinary clinical teams, building on MBBS PLO6. |
| PLO7 – Research Competence | Independently design, conduct and report original research relevant to the specialty, building on MBBS PLO7. |
| PLO8 – Digital and Information Literacy | Use specialty-specific digital and information tools (e.g., imaging systems, health information systems) appropriately, building on MBBS PLO8. |
| PLO9 – Health-System and Population Contribution | Apply specialist knowledge to health-system strengthening and population-health priorities, building on MBBS PLO9. |
| PLO10 – Clinical Teaching and Lifelong Learning | Teach and supervise junior colleagues and demonstrate continued specialist professional development, building on MBBS PLO10. |

## EQUAL OPPORTUNITY STATEMENT

Lincoln University of Eswatini is committed to equal opportunity in admission, teaching, assessment and progression on the MMed programme, across all five specialisations. LUE does not discriminate on the grounds of race, ethnicity, national origin, sex, disability, religion, or socio-economic background. Applicants and trainees with disabilities are supported through reasonable accommodation in teaching, assessment and clinical placement wherever consistent with the essential competencies required for safe specialist medical practice.

# ENTRY REQUIREMENTS AND ADMISSIONS FRAMEWORK

## 1. Admission Pathways

Admission into the Master of Medicine (any of the five specialisations) at Lincoln University of Eswatini (LUE) shall occur through two formally recognised pathways:

1. Standard Admission
2. Admission via Recognition of Prior Learning (RPL)

Both pathways are governed by LUE's commitments to equity, non-discrimination, academic integrity and international comparability, and by the ESQF's Standard 7 benchmark for Master's-level admission.

## 2. Standard Admission Requirements

Applicants seeking admission through the standard route must meet the following minimum criteria:

- A recognised Bachelor of Medicine and Bachelor of Surgery (MBBS/MBChB) degree or equivalent, consistent with the ESQF Standard 7 Master's-entry benchmark (a Bachelor's degree with at least a 2.1, or Honours 2.2, or programme-specific equivalent — for MMed, full completion and passing of the MBBS at the required standard);
- Full internship completion and current registration as a Medical Officer with the relevant national (or recognised regional) medical regulatory authority;
- A minimum of two (2) years' post-internship clinical experience, including relevant exposure to the chosen specialty discipline;
- Successful performance in a competitive selection process (see below), given the limited number of specialist training posts available in each specialisation.

These requirements ensure that all entrants have the demonstrated undergraduate medical competence and clinical experience necessary for safe, effective specialist training.

## 3. Admission via Recognition of Prior Learning (RPL)

LUE recognises that experienced Medical Officers may present additional relevant clinical, research or teaching experience beyond the minimum standard requirements. The MMed programme considers such experience through a structured RPL Portfolio of Evidence (PoE) Assessment, used to inform (but not replace) the standard entry requirements above.

### 3.1 Eligibility for RPL Consideration

- Extended relevant clinical experience beyond the minimum two years (e.g., prior medical-officer service concentrated in the chosen specialty area);
- Evidence of relevant research, publication or teaching experience;
- Demonstrated capacity for postgraduate specialist study, evidenced through the PoE and interview.

### 3.2 Components of the RPL Portfolio of Evidence (PoE)

- Curriculum Vitae detailing clinical service, research and teaching experience;
- Reflective Narrative demonstrating specialty-relevant learning acquired through service;
- Workplace Evidence, such as clinical logbooks, case reports, audits or quality-improvement projects;
- Letters of Reference from supervising specialists or clinical directors;
- Relevant Certificates (e.g., short courses, diplomas relevant to the specialty).

### 3.3 RPL Assessment Process

3. Document Review by the Admissions Committee.
4. Evaluation of the PoE against LUE's postgraduate medical entry competencies.
5. Admissions/Selection Interview, using the standardised rubric.
6. Recommendation for Admission based on demonstrated equivalence and merit.

Consistent with ESHEC Standard 9, admissions via the RPL route shall not constitute more than 10% of the annual intake for each MMed specialisation.

## 4. Standardised International Admissions Protocol

### 4.1 Mandatory EQA Equivalence

All foreign medical qualifications must be accompanied by a Letter of Equivalence issued by the Eswatini Qualifications Authority (EQA). No foreign qualification shall be processed without this document.

### 4.2 Selection Interview and Rubric

All applicants — standard or RPL — undergo a structured selection interview assessed using LUE's Postgraduate Medical Admissions Rubric, which evaluates:

- Clinical knowledge and reasoning relevant to the chosen specialty;
- Prior clinical experience and its relevance to the specialty;
- Motivation for, and commitment to, specialist training;
- Alignment with MMed Programme Learning Outcomes.

### 4.3 Background Verification Checklist

- Identity verification;
- Qualification and registration authenticity (verified with the relevant medical regulatory authority);
- Reference checks.

## 5. Mature Entry and Competitive Selection

Given the limited number of specialist training posts, admission to each MMed specialisation is competitive. The Faculty of Medicine, Dentistry and Allied Health Sciences, in conjunction with the relevant clinical department heads, ranks eligible applicants by academic record, clinical experience and interview performance. All admission recommendations are subject to approval by LUE's Academic Board.

## 6. Final Admission Decision

Admission decisions are made by LUE's Admissions Committee, in consultation with the relevant specialty department, based on: academic eligibility; registration status; EQA equivalence (where applicable); RPL PoE assessment (for RPL applicants); interview performance; and verification outcomes. The Committee's decision is final and guided by LUE's principles of fairness, academic integrity and institutional excellence.

## 7. Accuracy of Promotional Material

All LUE recruitment and promotional material for the MMed programme (prospectus, website, brochures) will present accurate and sufficient information on admission requirements, completion requirements and academic standards for each specialisation. Such material will comply with ESHEC regulations and accurately state the programme's ESQF Level 9 classification and its accreditation status at all times, including during any period of provisional or pending accreditation.

# SPECIAL DEPARTMENTAL REGULATIONS

## 1. Course Completion Requirements

- All modules/rotations within each MMed specialisation are compulsory. Trainees must pass each module with a minimum grade of 60% (reflecting the higher safety standard required of specialist, largely unsupervised clinical practice) to progress.
- The Research Dissertation (Years 3–4) must be passed at the standard set by LUE's Postgraduate Research Regulations, including successful oral defence before a panel including an external examiner.

## 2. Elective Modules

- The Year 4 Elective Subspecialty Placement (or, for Community Medicine, the Elective Placement with a regional/international health agency) contributes to the overall grade but allows trainees to select an area of subspecialty or agency exposure within Faculty-approved options.

## 3. Externalisation of Modules

- All modules/rotations within the MMed programme must be completed internally at LUE or at LUE-approved, MOU-affiliated specialist clinical training sites. Externalisation to unaffiliated institutions is not permitted, other than the approved Year 4 elective placement.

## 4. Quality Control and Evaluation

- Regular academic audits and curriculum reviews occur at least every four years, overseen by external moderators, the relevant specialist college (where an endorsement relationship exists) and, where applicable, ESHEC.

## 5. Competence and Preparation

- The modules/rotations offered in each MMed specialisation provide the competencies required to prepare trainees for independent consultant-level specialist practice.

## 6. Core and Specialty Rotation Sequencing

- Trainees must pass all core (shared) modules and each year's specialty rotations with the required minimum grade before progressing to the next year's rotations, given the cumulative, competency-based nature of specialist clinical training.

# DEGREE AWARD AND CLASSIFICATION

- Upon successful completion of all core and specialty-specific modules and the Research Dissertation, and having met all programme requirements, a trainee will be awarded the degree of Master of Medicine in the relevant specialisation — e.g., “Master of Medicine (Paediatrics)”, “Master of Medicine (Obstetrics & Gynaecology)”, “Master of Medicine (Anaesthesiology)”, “Master of Medicine (Community Medicine)”, or “Master of Medicine (Internal Medicine)” — at the end of the fourth year.
- Each MMed specialisation is awarded as a single integrated specialist professional qualification (ESQF Level 9) and is not subject to Pass/Honours differentiation, consistent with international practice for specialist medical qualifications.
- Graduates must register as a specialist with the relevant national medical regulatory authority before independent specialist practice.

## Grading System and GPA

Every module mark is additionally converted to a letter grade and grade point on LUE's standard 4.00-point scale, from which each trainee's Grade Point Average (GPA) and cumulative GPA (CGPA) are computed:

| Percentage Mark | Letter Grade | Grade Point | Interpretation |
|---|---|---|---|
| 80–100 | A+ | 4.00 | Exceptional |
| 70–79 | A | 4.00 | Excellent |
| 60–69 | B | 3.00 | Very Good |
| 50–59 | C | 2.00 | Good |
| 45–49 | D | 1.00 | Pass |
| 0–44 | F | 0.00 | Fail |

*Table: LUE grading system and grade-point scale, applied uniformly to every module in this programme.*

GPA is calculated each semester as the credit-weighted mean of each module's grade point; CGPA is maintained cumulatively across all completed semesters. A minimum CGPA of 2.00 is required to remain in good academic standing, with the Faculty Academic Progress Committee empowered to recommend a repeat semester, or withdrawal, where a trainee's CGPA falls below 2.00 for two consecutive semesters. As stated above, this grading scale governs module-level assessment and transcript purposes; it does not translate into a Class of Honours, consistent with international practice for specialist medical qualifications.

# RATIONALE TO MODULE NUMBERING

LUE's MMed module codes follow the format MMD9-<3-letter Specialty/Core Abbreviation>-<Credits>, for example MMD9-PAE-30 (MMed, ESQF Level 9, Paediatrics rotation, 30 credits) or MMD9-RMB-20 (MMed, ESQF Level 9, Research Methodology and Biostatistics, 20 credits). All MMed modules are coded at a uniform ESQF Level 9, since entry to the programme already requires an ESQF Level 8 qualification (the MBBS); unlike the MBBS/BDS, there is no ascending pre-clinical/clinical level structure within a specialist postgraduate programme.

- Specialty Abbreviations: PAE (Paediatrics), OBG (Obstetrics & Gynaecology), ANA (Anaesthesiology), COM (Community Medicine), INT (Internal Medicine).
- Core/Shared Abbreviations: RMB (Research Methodology and Biostatistics), ELP (Ethics, Law and Professionalism), HSM (Health Systems Management), TES (Teaching and Educational Supervision), RDP (Research Dissertation Proposal), RDD (Research Dissertation Defence).
- Alignment with Programme Outcomes: Each module code is cross-referenced to specific PLOs, allowing trainees and reviewers to track outcome coverage across the curriculum.

# PROGRAMME STRUCTURE AND CREDITS — 480 CREDITS, ESQF LEVEL 9

## Programme Duration

The Master of Medicine (in each specialisation) is a four (4) year programme, full-time (8 semesters), consistent with established Southern African MMed residency-training practice.

## ESQF Level Classification

The ESQF Complete Admission & Progression Matrix classifies a Master's Degree as Level 9 (180 credits minimum, normally 1.5–3 years). The MMed's total credit load (480) and duration (4 years) exceed this generic minimum, consistent with the Matrix's own allowance that "programme requirements may be higher" for specialised, professionally regulated postgraduate medical qualifications — the same principle already applied to LUE's MBBS and BDS/BCh.D relative to their own generic ESQF minimums.

## Total Credits Required for Award

To qualify for the degree (in any specialisation), a trainee must accumulate:

- Total Credits: 480
- Total Notional Hours: 4,800
- Core/Shared Credits (common to all specialisations): 105
- Specialty-Specific Credits: 375

## Credit Distribution by Year

| Year | Core / Specialty Split | Total Credits |
|---|---|---|
| 1 | Core: 30 \| Specialty: 90 | 120 |
| 2 | Core: 15 \| Specialty: 105 | 120 |
| 3 | Core: 30 \| Specialty: 90 | 120 |
| 4 | Core: 30 \| Specialty: 90 | 120 |

*Table: Credit distribution by year, identical in structure across all five specialisations at 120 credits/year (ESQF Level 9 throughout). Programme total: 480 credits over 4 years.*

## Pass Requirement

Each module/rotation must be passed with at least 60%, reflecting the higher safety standard required of specialist, largely unsupervised clinical practice.

## Credit Transfer and Accumulation

- Credits are derived from engagement in clinical rotations, ward/theatre/clinic supervision, tutorials, research supervision, directed and self-directed learning, and assignments, tests and examinations.
- Specialty rotation modules are typically 30–35 credits; core/shared modules range from 10 to 30 credits depending on scope. Attendance at clinical teaching is compulsory; trainees who attend less than 80% of scheduled clinical sessions will not be permitted to sit the relevant sessional examination.

## Degree Classification Weighting

As each MMed specialisation is awarded as a single integrated specialist professional qualification rather than a classified (Pass/Merit/Distinction) Master's degree, no differential year-weighting is applied to a final classification. Progression is instead governed by the Pass Requirement above at each year, consistent with international practice for specialist medical qualifications.

## Distribution of Notional Hours per Module

### Standard 30-Credit Specialty Rotation (worked example)

- Clinical/Ward/Theatre Supervision: 120
- Tutorials, Case-Based and Small-Group Learning: 60
- Self-Directed Study and Case Preparation: 80
- Assignments, Logbooks and Examinations: 40
- Total Notional Hours: 300
- Credits: 30

### Research Dissertation Defence Module (30 Credits)

- Supervision Contact: 30
- Self-Directed Data Analysis and Write-Up: 150
- Review, Revision and Oral Defence: 120
- Total Notional Hours: 300
- Credits: 30

# ASSESSMENT METHODS

LUE applies a mandated, faculty-wide assessment-weighting scheme to every MMed module, adapted for the specialist-training context:

| Assessment Component | Contribution | Description |
|---|---|---|
| Attendance | 5% | Compulsory attendance at ward rounds, clinics, theatre sessions and tutorials. |
| Internal (Formative) Assessment | 35% | Case presentations, logbooks, in-training assessments, morbidity/mortality presentations, research progress reports. |
| End (Summative) Assessment | 60% | Written examination and/or Clinical/Structured Oral Examination, specific to each rotation (see module tables below). |
| Supplementary Assessment | 100% | Written examination and/or Clinical/Structured Oral Examination, for trainees undertaking an approved resit. |

*Table: LUE's mandated assessment-weighting scheme, applied uniformly to every MMed module. All assessment is delivered via Campus (in-person) Learning, given the clinical, patient-facing nature of the programme.*

## Specialist Exit Examination and Dissertation

In addition to year-by-year module assessment, each trainee must pass a Specialist Exit Examination (comprising written papers and a structured clinical/oral examination specific to the specialisation) at the end of Year 4, and successfully defend the Research Dissertation before an examination panel including an external examiner, before the MMed is awarded.

## Alignment with Institutional Assessment Policy

The mandated weighting scheme above is applied within LUE's institution-wide Assessment Policy, which governs the number and spacing of assessments per module, recording of results, and settlement of disputes.

## Moderation

- Internal moderation: a second qualified specialist examiner reviews all clinical/structured oral examinations and the Research Dissertation before results are finalised.
- External moderation: an appointed external examiner (a specialist in the relevant discipline, where possible from a recognised regional specialist college) moderates the Specialist Exit Examination and the dissertation defence.

## Assessment Appeals and Dispute Resolution

Trainees may query an assessment result within a defined window after results are released. Appeals are reviewed by an Assessment Board independent of the original examiner.

## Staff Assessment Training

All specialist teaching staff complete induction in postgraduate assessment design, marking and moderation before setting or marking any module assessment.

## Rigour of Work-Integrated Learning (Clinical Rotation) Assessment

Clinical rotation assessment uses standardised logbooks, in-training assessment forms, direct observation of procedural skills, and structured clinical/oral examinations, moderated as set out above.

## Security and Record-Keeping

Examination papers, structured oral/clinical examination materials and marks are held securely by the Faculty Examinations Office, with results retained for the period specified in LUE's institutional records-retention policy.

# TEACHING METHODS

LUE employs teaching methods appropriate to specialist postgraduate medical training:

- Ward Rounds and Bedside Teaching: supervised, progressively independent clinical decision-making across all specialty rotations.
- Theatre/Procedural Supervision: direct supervision of specialty-specific procedures, progressing to independent practice under distant supervision.
- Case-Based and Morbidity/Mortality Discussions: structured case review to develop clinical reasoning and departmental clinical governance skills.
- Journal Clubs and Specialist Seminars: critical appraisal of current specialist literature.
- Research Supervision: one-to-one supervision for the Research Dissertation.
- Teaching Practicum: supervised teaching of undergraduate medical students and junior doctors (Teaching, Training and Educational Supervision Skills module).
- Simulation-Based Training: where appropriate (e.g., anaesthesia crisis simulation, neonatal resuscitation simulation), to build procedural competence before patient contact.

## Class Size Guidelines

- Specialist seminars/journal clubs: up to 15 trainees.
- Ward-round and theatre supervision: 1–2 trainees per supervising specialist, consistent with patient-safety and specialist-training norms.

## Teaching Workload and Multi-Site Management

Consistent with ESHEC Standard 7, no specialist supervisor is assigned teaching/supervision responsibility exceeding the equivalent of four (4) modules per semester. A Postgraduate Training Coordinator manages rotation timetabling across any multiple hospital sites used for specialty training, to ensure no trainee cohort is disadvantaged relative to another.

## Learner Tracking and At-Risk Support

In-training assessment records are reviewed each rotation by the relevant specialty department and the Postgraduate Training Committee. Trainees falling below the 60% pass threshold at mid-rotation are identified as at-risk and referred for additional supervision or remediation.

## Distance and Blended Learning — Applicability

The MMed is delivered exclusively via Campus (in-person) Learning, given its clinical, patient-facing nature; journal clubs and didactic seminar content may be supplemented by the LMS, but core clinical supervision remains in-person throughout.

## DELIVERY METHODS

Given the clinical, patient-facing nature of the MMed, delivery is predominantly in-person (Campus/Hospital-Based Learning):

- Hospital-Based Clinical Rotations: the core delivery mode across all four years and all five specialisations.
- Seminar Rooms: for journal clubs, specialist seminars and the Teaching Practicum.
- Simulation Facilities: for procedural and crisis-management training where appropriate to the specialty.
- Independent Study: self-paced review of specialist literature, supported by a learning-management system and library/journal access.
- Research Supervision: one-to-one and small-group supervision for the Research Dissertation.
- Limited Blended Elements: recorded seminars and online formative quizzes may supplement in-person teaching for purely didactic content; core clinical-rotation components remain in-person throughout.

# INTERNAL QUALITY ASSURANCE MECHANISM

This section addresses ESHEC Standard 5.

## Postgraduate Training Committee and Faculty Quality Assurance Committee

A Postgraduate Training Committee, comprising the heads of each specialty department, oversees day-to-day training quality across the five specialisations and reports to LUE's Faculty Quality Assurance Committee (FQAC) and central Quality Assurance Directorate.

## Stakeholder Feedback and Tracer Studies

- Structured feedback from affiliated hospitals, specialty departments and relevant professional colleges is incorporated into annual programme review.
- LUE commits to tracer studies of graduates' specialist registration and career outcomes, beginning with the first graduating cohort of each specialisation.

## Assessment-Data-Informed Review

Aggregate rotation pass rates, in-training assessment scores and Specialist Exit Examination performance are analysed each year by the Postgraduate Training Committee to identify rotations requiring curriculum or supervision adjustment.

## Academic Integrity

LUE's institutional academic-integrity and plagiarism-detection policy applies to all case reports, logbook entries and the Research Dissertation, including for undisclosed use of generative AI tools (see Informed and Ethical Use of Technology, below).

## Trainee Involvement in Quality Assurance

Trainee representatives from each specialisation sit on the Postgraduate Training Committee. End-of-rotation trainee evaluations of supervision quality are analysed within a defined turnaround period and reported to department heads and the FQAC for action.

## Security of Practical and Clinical Assessment

Structured clinical/oral examinations are conducted with appropriate examiner-to-candidate ratios and standardised marking rubrics, consistent with the Assessment Methods section above.

# PHYSICAL RESOURCES AND INFRASTRUCTURE

This section addresses ESHEC Standard 6.

## Specialist Clinical Training Sites

- Paediatrics: a hospital with a dedicated paediatric ward, neonatal unit and paediatric emergency capacity.
- Obstetrics & Gynaecology: a hospital with a labour ward, operating theatre for obstetric/gynaecological surgery, and antenatal/gynaecological outpatient facilities.
- Anaesthesiology: a hospital with a functioning operating-theatre complex, obstetric theatre, and (where available) a high-care/intensive-care unit.
- Community Medicine: LUE's affiliated district health office(s) and primary healthcare facilities, for district-management and field-epidemiology placements.
- Internal Medicine: a hospital with general medical wards, a high-care/critical-care facility, and access to relevant subspecialty investigations (cardiology, nephrology, gastroenterology).

## Academic and Research Facilities

- Seminar rooms for journal clubs and specialist teaching, at each affiliated training site.
- Simulation facilities appropriate to each specialty (e.g., neonatal resuscitation manikins for Paediatrics, airway/crisis-simulation equipment for Anaesthesiology).
- Library facilities with specialist-database and journal access (physical and electronic).
- Research-supervision space and statistical-software access for dissertation work.

## Clinical Training Site Agreements

*Signed clinical-affiliation MOUs with named Eswatini hospitals and health facilities, sufficient in specialist case-volume, subspecialty-exposure and supervisory-capacity terms to deliver every rotation in each of the five specialisations, are required before trainees commence specialist rotations. This is recorded as "Pending Institutional Evidence" in the Compliance Matrix above.*

## IT Infrastructure

A Learning Management System (LMS) with reliable Wi-Fi/connectivity supports the limited blended elements described under Delivery Methods, and a dedicated IT help desk supports staff and trainees during teaching hours (see Learner Support Services, below).

## Maintenance and Procurement

Equipment and facilities essential for specialist teaching and research are procured, replenished and maintained under LUE's institutional asset-management policy and, where sited at affiliated hospitals, under the terms of the relevant clinical-affiliation MOU.

# STAFFING

This section addresses ESHEC Standard 7.

## Staffing Structure

The programme is administered by the Faculty Dean, a Postgraduate Medical Training Coordinator, and a Head of Department for each of the five specialisations (Paediatrics, Obstetrics & Gynaecology, Anaesthesiology, Community Medicine, Internal Medicine), supported by specialist consultant teaching staff and administrative support.

## Minimum Staff Qualifications

*ESHEC Standard 7(c) specifies that lecturers in postgraduate programmes hold a Doctoral degree aligned with the Master's and Bachelor's degrees in the relevant discipline. For specialist clinical postgraduate medical training, LUE treats a recognised specialist medical qualification (e.g., Fellowship of a recognised College of Medicine, or an equivalent MMed/specialist registration) together with current registration as a Specialist with the relevant national medical regulatory authority as the doctoral-equivalent qualification for this purpose, consistent with international practice in clinical (as opposed to purely academic) postgraduate medical education. LUE will confirm this treatment with ESHEC as part of final programme approval.*

- Specialist supervisors for each rotation hold a recognised specialist qualification (Fellowship/MMed or equivalent) in the relevant discipline and are registered as a Specialist with the applicable national medical regulatory authority.
- Core/shared-module teaching staff (Research Methodology, Ethics/Law, Health Systems Management, Teaching Skills) hold, at minimum, a relevant Master's or Doctoral qualification aligned to the module taught.
- All academic and specialist staff qualifications are verified against the Eswatini Qualifications Framework and against the original awarding institution/college before appointment.

## Staff Ratios and Workload

- LUE commits to maintaining at least 60% full-time to 40% part-time (e.g., visiting/adjunct specialist consultant) academic staff for the MMed programme.
- No specialist supervisor carries teaching/supervision responsibility exceeding the equivalent of four (4) modules per semester.

## Recruitment, Development and Performance Management

- Specialist staff recruitment and selection is objective, inclusive, equitable and transparent, aligned with the Labour Relations Act and LUE's conditions of service.
- A continuous professional-development policy applies, including specialist CPD/CME requirements consistent with each trainee-supervisor's own professional-body obligations.
- A performance-management system, based on clinical supervision, teaching, research and departmental service, informs annual appraisal.

*The named specialist staffing list, individual CVs, specialist registration confirmation and signed employment/affiliation contracts for each of the five specialisations are to be compiled by LUE's Human Resources and Registrar's Office and appended to the final ESHEC submission. This is recorded as "Pending Institutional Evidence" in the Compliance Matrix above.*

## LEARNER SUPPORT SERVICES

This section addresses ESHEC Standard 8.

- Trainee Profiling: admissions, rotation and research records are maintained centrally to inform individualised academic and pastoral support.
- Special-Needs Support: reasonable accommodation in teaching, assessment and clinical placement is provided wherever consistent with the essential competencies required for safe specialist practice (see Equal Opportunity Statement).
- LMS Query Channel: trainees submit academic queries via the LMS or Faculty Office, with defined turnaround times for responses.
- Library Access: specialist-database and journal access is available to trainees at all affiliated clinical-training sites.
- Grievance Procedure: a published, staged grievance procedure (informal resolution → Departmental Head → Faculty Board → Academic Board) is available to all trainees.
- IT Help Desk: available during teaching hours to support LMS and digital-resource access.
- Medical, Recreational and Academic Support: trainee health services, counselling referral (including support for the well-documented stresses of specialist clinical training) and academic/research advising are available through LUE's central student-services function.
- Satisfaction Surveys: an annual trainee satisfaction survey is administered by the Faculty Quality Assurance Committee.

## FINANCIAL RESOURCES

This section addresses ESHEC Standard 10.

LUE's Faculty of Medicine, Dentistry and Allied Health Sciences will maintain a programme-specific budget and enrolment-projection plan for the MMed, covering all five specialisations, aligned to confirmed specialist clinical-placement and staffing capacity.

*A costed 3–5 year projected-expenditure plan (specialist staffing/honoraria, equipment, clinical-site affiliation costs, library/journal subscriptions, external-examiner costs) and matching enrolment projections for each specialisation are to be prepared by LUE's Finance Office and appended to the final ESHEC submission. This is recorded as "Pending Institutional Evidence" in the Compliance Matrix above.*

As the MMed is delivered entirely via Campus/Hospital-Based Learning, the distance/online-specific transparency provisions of Standard 10 are not directly applicable; LUE nonetheless publishes its full fee schedule upfront with no hidden costs.

## INFORMED AND ETHICAL USE OF TECHNOLOGY

This section addresses ESHEC Standard 11.

- LUE applies its institution-wide policy on the ethical use of technology, including generative AI (Gen-AI) tools, to the MMed programme's teaching, learning, research and assessment.
- Permitted and prohibited uses of Gen-AI in case reports, logbooks and the Research Dissertation are stated clearly in programme guides, with academic-integrity consequences for undisclosed use in assessed work.
- Specialist staff and trainees receive induction and periodic training on emerging technologies relevant to their specialty (e.g., point-of-care ultrasound, digital imaging systems, simulation software, statistical software for dissertation analysis).
- The Faculty Quality Assurance Committee monitors the use and educational benefit of technology, including Gen-AI, in the programme as part of its annual internal quality assurance review.

# CURRICULUM STRUCTURE OVERVIEW (COMMON TO ALL FIVE SPECIALISATIONS)

Each MMed specialisation shares an identical credit structure and core/shared-module set, differing only in the specialty-specific rotations detailed in the following chapter. This structure is summarised below and detailed in full for each specialisation thereafter.

| Year | Core/Shared Modules (Credits) | Specialty Credits | Total |
|---|---|---|---|
| 1 | Research Methodology & Biostatistics (20); Ethics, Law & Professionalism (10) | 90 | 120 |
| 2 | Health Systems, Leadership & Management (15) | 105 | 120 |
| 3 | Teaching & Educational Supervision Skills (10); Dissertation Proposal & Data Collection (20) | 90 | 120 |
| 4 | Dissertation Analysis, Write-Up & Oral Defence (30) | 90 | 120 |

*Table: Common year-by-year structure across all five MMed specialisations. Total per specialisation: 480 credits over 4 years.*

## Core / Shared Module Descriptions

### MMD9-RMB-20: Research Methodology and Biostatistics for Postgraduate Study

*Credits: 20 | Level: ESQF 9 | Notional Hours: 200 (Guided 80 / Independent 120) | End Assessment: Written Exam + Research Protocol*

***Rotation/Module Description***

Develops advanced research-design, data-analysis and critical-appraisal skills required to plan and execute the Year 3–4 dissertation, building on the research literacy established in the MBBS.

***Key Competencies Developed***

- Design a research protocol appropriate to a clinical postgraduate dissertation.
- Apply advanced descriptive and inferential statistical methods to clinical data.
- Critically appraise the specialist literature relevant to the trainee's discipline.

### MMD9-ELP-10: Advanced Medical Ethics, Law and Professionalism

*Credits: 10 | Level: ESQF 9 | Notional Hours: 100 (Guided 40 / Independent 60) | End Assessment: Written Exam + Case-Based Assignment*

***Rotation/Module Description***

Extends undergraduate medical ethics to the specialist-practice context, covering consent for complex/high-risk procedures, medico-legal liability, and the ethical supervision of junior colleagues.

***Key Competencies Developed***

- Apply advanced ethical reasoning to complex specialist-practice scenarios.
- Describe the medico-legal framework governing specialist practice in Eswatini.
- Model professional and ethical supervision of junior medical staff.

### MMD9-HSM-15: Health Systems, Leadership and Management

*Credits: 15 | Level: ESQF 9 | Notional Hours: 150 (Guided 60 / Independent 90) | End Assessment: Written Exam + Management Project*

***Rotation/Module Description***

Covers health-systems structure, resource management and clinical leadership relevant to a specialist's role in departmental and hospital management.

***Key Competencies Developed***

- Apply health-systems and resource-management principles to a specialist clinical department.
- Demonstrate clinical leadership and team-management skills.
- Evaluate the specialist's role within Eswatini's referral and health-system structure.

### MMD9-TES-10: Teaching, Training and Educational Supervision Skills

*Credits: 10 | Level: ESQF 9 | Notional Hours: 100 (Guided 40 / Independent 60) | End Assessment: OSCE (Teaching) + Portfolio*

***Rotation/Module Description***

Develops the specialist trainee's capacity to teach and supervise undergraduate medical students and junior doctors, consistent with the specialist's future role as a clinical educator.

***Key Competencies Developed***

- Deliver an effective bedside/clinical teaching session.
- Provide constructive, competency-based feedback to junior trainees.
- Apply principles of adult learning to clinical supervision.

### MMD9-RDP-20: Research Dissertation: Proposal and Data Collection

*Credits: 20 | Level: ESQF 9 | Notional Hours: 200 (Guided 80 / Independent 120) | End Assessment: Supervisor Assessment + Protocol Defence*

***Rotation/Module Description***

The first phase of the specialist dissertation: protocol development, ethics approval and data collection on a research question relevant to the trainee's specialty and to Eswatini's health priorities.

***Key Competencies Developed***

- Finalise and defend a dissertation research protocol.
- Obtain ethical clearance for a clinical research study.
- Conduct systematic data collection under supervision.

### MMD9-RDD-30: Research Dissertation: Analysis, Write-Up and Oral Defence

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Dissertation + Oral Defence*

***Rotation/Module Description***

Completion of the specialist dissertation: data analysis, interpretation, write-up to publishable standard, and oral defence before an examination panel including an external examiner.

***Key Competencies Developed***

- Analyse and interpret dissertation data appropriately.
- Produce a dissertation of publishable academic standard.
- Defend the dissertation's methodology and findings orally before an examination panel.

# SPECIALISATION-SPECIFIC CURRICULA

Each of the five MMed specialisations follows the common core/shared-module structure above, with the following specialty-specific rotation sequence (375 credits per specialisation, 90/105/90/90 across Years 1–4).

## I. Paediatrics — Master of Medicine (Paediatrics)

The MMed (Paediatrics) trains general medical officers into specialist paediatricians capable of managing the full range of childhood illness prevalent in Eswatini, including the substantial paediatric HIV and malnutrition burden, within hospital, neonatal and community settings.

### Year 1

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-PAE-30 | General Paediatrics I | 30 | Written Exam + Clinical (Long/Short Case) Examination |
| MMD9-PAE-31 | Neonatology I | 30 | Written Exam + Clinical Examination |
| MMD9-PAE-32 | Paediatric Emergency and Critical Care I | 30 | OSCE + Clinical Examination |

#### MMD9-PAE-30: General Paediatrics I

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Clinical (Long/Short Case) Examination*

***Rotation/Module Description***

Foundational specialist rotation in the assessment and management of common paediatric medical conditions, building directly on MBBS-level paediatric competence.

***Key Competencies Developed***

- Independently assess and manage common paediatric medical conditions.
- Formulate specialist-level differential diagnoses for complex paediatric presentations.
- Supervise junior colleagues managing paediatric patients.

#### MMD9-PAE-31: Neonatology I

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Introduces specialist neonatal care, including resuscitation, prematurity management and common neonatal emergencies.

***Key Competencies Developed***

- Manage the sick and premature neonate under specialist supervision.
- Perform advanced neonatal resuscitation.
- Counsel families on neonatal prognosis and care.

#### MMD9-PAE-32: Paediatric Emergency and Critical Care I

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: OSCE + Clinical Examination*

***Rotation/Module Description***

Covers the recognition and management of paediatric medical and surgical emergencies, including triage and initial stabilisation.

***Key Competencies Developed***

- Triage and stabilise the critically ill child.

- Perform paediatric advanced life support.
- Coordinate emergency paediatric care within a multidisciplinary team.

### Year 2

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-PAE-33 | General Paediatrics II and Paediatric Infectious Diseases/HIV | 35 | Written Exam + Clinical Examination |
| MMD9-PAE-34 | Neonatology II | 35 | Written Exam + Clinical Examination |
| MMD9-PAE-35 | Paediatric Subspecialty Rotation (Cardiology / Nephrology / Neurology) | 35 | Written Exam + Clinical Examination |

#### MMD9-PAE-33: General Paediatrics II and Paediatric Infectious Diseases/HIV

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Advanced management of general paediatric conditions with particular emphasis on paediatric HIV, tuberculosis and other infectious diseases of regional significance.

***Key Competencies Developed***

- Manage paediatric HIV and its complications to specialist standard.
- Manage severe paediatric infectious disease presentations.
- Apply national paediatric HIV/TB treatment guidelines.

#### MMD9-PAE-34: Neonatology II

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Consolidates neonatal specialist competence, including management of neonatal sepsis, jaundice and congenital anomalies.

***Key Competencies Developed***

- Manage complex neonatal conditions independently.
- Coordinate care for neonates with congenital anomalies.
- Lead a neonatal unit ward round.

#### MMD9-PAE-35: Paediatric Subspecialty Rotation (Cardiology / Nephrology / Neurology)

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

A block rotation exposing the trainee to paediatric cardiology, nephrology and neurology, building subspecialty recognition and referral competence.

***Key Competencies Developed***

- Recognise and initiate management of paediatric cardiac, renal and neurological conditions.
- Formulate appropriate subspecialty referral pathways.
- Interpret subspecialty investigations relevant to each discipline.

### Year 3

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-PAE-36 | Community and Ambulatory Paediatrics | 30 | Written Exam + Community Project Report |

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-PAE-37 | Paediatric Surgery and Emergency Liaison | 30 | Clinical Examination |
| MMD9-PAE-38 | Senior Paediatric Registrar Rotation I | 30 | Clinical Examination + Portfolio |

### MMD9-PAE-36: Community and Ambulatory Paediatrics

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Community Project Report*

***Rotation/Module Description***

Focuses on child health at the primary-care and community level, including growth monitoring, immunisation and management of common ambulatory illness.

***Key Competencies Developed***

- Lead a community child-health promotion initiative.
- Manage ambulatory paediatric care within a primary-care model.
- Evaluate the effectiveness of child-health programmes.

### MMD9-PAE-37: Paediatric Surgery and Emergency Liaison

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination*

***Rotation/Module Description***

Develops the trainee's competence in recognising surgical paediatric emergencies and coordinating care with paediatric/general surgical colleagues.

***Key Competencies Developed***

- Recognise paediatric surgical emergencies requiring urgent referral.
- Coordinate peri-operative paediatric medical care.
- Liaise effectively with surgical colleagues.

### MMD9-PAE-38: Senior Paediatric Registrar Rotation I

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination + Portfolio*

***Rotation/Module Description***

The trainee assumes increasing independent responsibility for ward and outpatient paediatric care under distant supervision.

***Key Competencies Developed***

- Independently manage a paediatric ward caseload.
- Lead paediatric outpatient clinics.
- Mentor junior doctors and medical students.

## Year 4

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-PAE-39 | Senior Paediatric Registrar Rotation II | 30 | Clinical Examination + Portfolio |
| MMD9-PAE-40 | Paediatric Emergency and Critical Care II | 30 | Clinical Examination |
| MMD9-PAE-41 | Elective Subspecialty Placement | 30 | Reflective Report + Logbook |

### MMD9-PAE-39: Senior Paediatric Registrar Rotation II

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination + Portfolio*

***Rotation/Module Description***

Consolidates senior specialist responsibility across all paediatric rotations in preparation for independent consultant practice.

***Key Competencies Developed***

- Demonstrate consultant-level independent paediatric decision-making.
- Lead multidisciplinary paediatric case conferences.
- Contribute to departmental clinical governance.

### MMD9-PAE-40: Paediatric Emergency and Critical Care II

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination*

***Rotation/Module Description***

Advanced paediatric critical-care rotation consolidating resuscitation and intensive-care competence at consultant-entry level.

***Key Competencies Developed***

- Lead the resuscitation of critically ill children.
- Manage a paediatric high-care/intensive-care caseload.
- Evaluate and improve emergency paediatric care protocols.

### MMD9-PAE-41: Elective Subspecialty Placement

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Reflective Report + Logbook*

***Rotation/Module Description***

A supervised elective in a paediatric subspecialty of the trainee's choice, locally or through an approved external placement.

***Key Competencies Developed***

- Demonstrate advanced competence in a chosen paediatric subspecialty area.
- Reflect critically on the elective experience.
- Produce a placement report of specialist standard.

## II. Obstetrics & Gynaecology — Master of Medicine (Obstetrics & Gynaecology)

The MMed (Obstetrics & Gynaecology) trains general medical officers into specialist obstetricians and gynaecologists capable of managing high-risk pregnancy, operative delivery and gynaecological disease, directly addressing Eswatini's documented maternal-health and specialist-workforce priorities.

### Year 1

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-OBG-30 | General Obstetrics I | 30 | Written Exam + Clinical (Long/Short Case) Examination |
| MMD9-OBG-31 | General Gynaecology I | 30 | Written Exam + Clinical Examination |
| MMD9-OBG-32 | Basic Obstetric Ultrasound and Imaging | 30 | OSCE + Practical Exam |

#### MMD9-OBG-30: General Obstetrics I

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Clinical (Long/Short Case) Examination*

***Rotation/Module Description***

Foundational specialist rotation in antenatal, intrapartum and postpartum care, building on MBBS-level obstetric competence.

***Key Competencies Developed***

- Independently manage normal and moderately complicated pregnancy and labour.
- Perform instrumental delivery under supervision.
- Supervise junior colleagues in labour-ward management.

#### MMD9-OBG-31: General Gynaecology I

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Covers the assessment and management of common gynaecological conditions and outpatient gynaecological care.

***Key Competencies Developed***

- Assess and manage common gynaecological presentations independently.
- Perform basic gynaecological outpatient procedures.
- Counsel patients on gynaecological treatment options.

#### MMD9-OBG-32: Basic Obstetric Ultrasound and Imaging

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: OSCE + Practical Exam*

***Rotation/Module Description***

Introduces obstetric ultrasound competence for pregnancy dating, viability and basic fetal assessment.

***Key Competencies Developed***

- Perform basic obstetric ultrasound examinations.
- Interpret common obstetric ultrasound findings.
- Apply ultrasound findings to clinical decision-making.

### Year 2

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-OBG-33 | High-Risk Obstetrics and Operative Obstetrics I | 35 | Written Exam + Clinical Examination |
| MMD9-OBG-34 | Gynaecological Oncology and Operative Gynaecology | 35 | Written Exam + Clinical Examination |
| MMD9-OBG-35 | Reproductive Health and Family Planning | 35 | Written Exam + Assignment |

### MMD9-OBG-33: High-Risk Obstetrics and Operative Obstetrics I

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Advanced management of high-risk pregnancy (hypertensive disease, diabetes, HIV in pregnancy) and introduction to Caesarean section and operative delivery.

***Key Competencies Developed***

- Manage high-risk pregnancy to specialist standard.
- Perform Caesarean section under supervision.
- Manage obstetric complications of HIV and NCDs in pregnancy.

### MMD9-OBG-34: Gynaecological Oncology and Operative Gynaecology

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Covers the recognition and initial management of gynaecological malignancy and develops operative gynaecological skills.

***Key Competencies Developed***

- Recognise and initiate management of gynaecological malignancy.
- Perform common gynaecological operative procedures under supervision.
- Formulate appropriate oncology referral pathways.

### MMD9-OBG-35: Reproductive Health and Family Planning

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Assignment*

***Rotation/Module Description***

Covers contraception, infertility assessment and reproductive-health service delivery at population level.

***Key Competencies Developed***

- Provide comprehensive family-planning counselling and service delivery.
- Assess and initiate management of infertility.
- Evaluate reproductive-health service delivery models.

## Year 3

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-OBG-36 | Maternal-Fetal Medicine | 30 | Written Exam + Clinical Examination |
| MMD9-OBG-37 | Urogynaecology and Advanced Operative Gynaecology | 30 | Clinical Examination |
| MMD9-OBG-38 | Senior Labour Ward Management I | 30 | Clinical Examination + Portfolio |

### MMD9-OBG-36: Maternal-Fetal Medicine

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Focuses on the management of complex maternal-fetal conditions, including fetal growth restriction and multiple pregnancy.

***Key Competencies Developed***

- Manage complex maternal-fetal medicine cases independently.
- Interpret advanced fetal surveillance investigations.
- Coordinate multidisciplinary care for complex pregnancies.

### MMD9-OBG-37: Urogynaecology and Advanced Operative Gynaecology

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination*

***Rotation/Module Description***

Develops competence in urogynaecological assessment and advanced gynaecological surgical procedures.

***Key Competencies Developed***

- Assess and manage common urogynaecological conditions.
- Perform advanced gynaecological surgical procedures under supervision.
- Evaluate surgical outcomes and complications.

### MMD9-OBG-38: Senior Labour Ward Management I

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination + Portfolio*

***Rotation/Module Description***

The trainee assumes increasing independent responsibility for labour-ward leadership and emergency obstetric decision-making.

***Key Competencies Developed***

- Lead labour-ward management under distant supervision.
- Manage major obstetric emergencies independently.
- Mentor junior doctors and midwives in labour-ward practice.

## Year 4

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-OBG-39 | Senior O&G Registrar Rotation | 30 | Clinical Examination + Portfolio |
| MMD9-OBG-40 | Advanced Operative Obstetrics and Gynaecology | 30 | Clinical Examination |
| MMD9-OBG-41 | Elective Subspecialty Placement | 30 | Reflective Report + Logbook |

### MMD9-OBG-39: Senior O&G Registrar Rotation

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination + Portfolio*

***Rotation/Module Description***

Consolidates senior specialist responsibility across obstetric and gynaecological practice in preparation for independent consultant practice.

***Key Competencies Developed***

- Demonstrate consultant-level independent obstetric and gynaecological decision-making.
- Lead multidisciplinary maternal-health case conferences.
- Contribute to departmental clinical governance and maternal-mortality review.

### MMD9-OBG-40: Advanced Operative Obstetrics and Gynaecology

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination*

***Rotation/Module Description***

Consolidates advanced operative competence across obstetrics and gynaecology at consultant-entry level.

***Key Competencies Developed***

- Independently perform complex obstetric and gynaecological operative procedures.
- Manage major intra-operative and post-operative complications.
- Evaluate and improve operative-care protocols.

### MMD9-OBG-41: Elective Subspecialty Placement

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Reflective Report + Logbook*

***Rotation/Module Description***

A supervised elective in an obstetric or gynaecological subspecialty of the trainee's choice, locally or through an approved external placement.

***Key Competencies Developed***

- Demonstrate advanced competence in a chosen O&G subspecialty area.
- Reflect critically on the elective experience.
- Produce a placement report of specialist standard.

## III. Anaesthesiology — Master of Medicine (Anaesthesiology)

The MMed (Anaesthesiology) trains general medical officers into specialist anaesthesiologists capable of providing safe peri-operative, obstetric, paediatric and critical-care anaesthesia, directly addressing Eswatini's specialist workforce and surgical-safety priorities.

### Year 1

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-ANA-30 | Basic Anaesthesia and Airway Management | 30 | Written Exam + Clinical (OSCE) Examination |
| MMD9-ANA-31 | Applied Physiology and Pharmacology for Anaesthesia | 30 | Written Exam |
| MMD9-ANA-32 | Regional Anaesthesia I | 30 | OSCE + Clinical Examination |

#### MMD9-ANA-30: Basic Anaesthesia and Airway Management

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Clinical (OSCE) Examination*

***Rotation/Module Description***

Foundational specialist rotation in airway management, general anaesthesia technique and peri-operative patient assessment.

***Key Competencies Developed***

- Independently manage routine general anaesthesia.
- Perform advanced airway-management techniques.
- Conduct comprehensive pre-operative anaesthetic assessment.

#### MMD9-ANA-31: Applied Physiology and Pharmacology for Anaesthesia

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam*

***Rotation/Module Description***

Covers the applied physiological and pharmacological principles underlying safe anaesthetic practice.

***Key Competencies Developed***

- Apply cardiovascular and respiratory physiology to anaesthetic management.
- Apply pharmacokinetic principles to anaesthetic drug selection and dosing.
- Anticipate and manage physiological derangement under anaesthesia.

#### MMD9-ANA-32: Regional Anaesthesia I

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: OSCE + Clinical Examination*

***Rotation/Module Description***

Introduces spinal, epidural and peripheral nerve-block techniques for surgical anaesthesia and analgesia.

***Key Competencies Developed***

- Perform spinal and epidural anaesthesia safely.
- Perform common peripheral nerve-block techniques.
- Manage complications of regional anaesthesia.

### Year 2

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-ANA-33 | Obstetric Anaesthesia | 35 | Written Exam + Clinical Examination |

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-ANA-34 | Paediatric Anaesthesia | 35 | Written Exam + Clinical Examination |
| MMD9-ANA-35 | Critical Care Medicine I | 35 | Written Exam + Clinical Examination |

### MMD9-ANA-33: Obstetric Anaesthesia

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Covers anaesthesia for Caesarean section and other obstetric procedures, and management of obstetric anaesthetic emergencies.

***Key Competencies Developed***

- Provide safe anaesthesia for obstetric surgical procedures.
- Manage obstetric anaesthetic emergencies (e.g., failed intubation, haemorrhage).
- Coordinate anaesthetic care with the obstetric team.

### MMD9-ANA-34: Paediatric Anaesthesia

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Covers the physiological and technical differences of paediatric anaesthesia across the age range.

***Key Competencies Developed***

- Provide safe anaesthesia for paediatric surgical procedures.
- Manage paediatric airway and physiological differences safely.
- Manage paediatric anaesthetic emergencies.

### MMD9-ANA-35: Critical Care Medicine I

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Introduces the management of the critically ill patient requiring intensive or high-care support.

***Key Competencies Developed***

- Manage the critically ill patient requiring organ support.
- Interpret advanced haemodynamic and respiratory monitoring.
- Participate in multidisciplinary critical-care decision-making.

## Year 3

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-ANA-36 | Cardiothoracic and Vascular Anaesthesia | 30 | Clinical Examination |
| MMD9-ANA-37 | Neuroanaesthesia | 30 | Clinical Examination |
| MMD9-ANA-38 | Critical Care Medicine II | 30 | Clinical Examination + Portfolio |

### MMD9-ANA-36: Cardiothoracic and Vascular Anaesthesia

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination*

***Rotation/Module Description***

Covers anaesthesia for cardiac, thoracic and major vascular surgery.

***Key Competencies Developed***

- Provide safe anaesthesia for major cardiothoracic and vascular procedures.
- Manage cardiopulmonary bypass-related anaesthetic considerations.
- Manage major intra-operative haemodynamic instability.

### MMD9-ANA-37: Neuroanaesthesia

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination*

***Rotation/Module Description***

Covers anaesthesia for neurosurgical procedures and management of raised intracranial pressure.

***Key Competencies Developed***

- Provide safe anaesthesia for neurosurgical procedures.
- Manage raised intracranial pressure peri-operatively.
- Coordinate care with neurosurgical colleagues.

### MMD9-ANA-38: Critical Care Medicine II

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination + Portfolio*

***Rotation/Module Description***

Consolidates critical-care competence with increasing independent responsibility for complex intensive-care patients.

***Key Competencies Developed***

- Independently manage a complex critical-care caseload.
- Lead critical-care multidisciplinary rounds.
- Mentor junior doctors in critical-care management.

## Year 4

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-ANA-39 | Senior Anaesthesia Registrar Rotation | 30 | Clinical Examination + Portfolio |
| MMD9-ANA-40 | Trauma and Emergency Anaesthesia | 30 | Clinical Examination |
| MMD9-ANA-41 | Elective Subspecialty Placement | 30 | Reflective Report + Logbook |

### MMD9-ANA-39: Senior Anaesthesia Registrar Rotation

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination + Portfolio*

***Rotation/Module Description***

Consolidates senior specialist responsibility across anaesthetic subspecialties in preparation for independent consultant practice.

***Key Competencies Developed***

- Demonstrate consultant-level independent anaesthetic decision-making.
- Lead departmental theatre-list planning and risk management.
- Contribute to departmental clinical governance and morbidity/mortality review.

### MMD9-ANA-40: Trauma and Emergency Anaesthesia

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination*

***Rotation/Module Description***

Covers anaesthesia for trauma and emergency surgery, including damage-control and resource-limited settings relevant to Eswatini.

***Key Competencies Developed***

- Provide safe anaesthesia in trauma and emergency surgical settings.
- Apply damage-control anaesthetic principles in resource-limited settings.
- Lead the anaesthetic component of trauma-team response.

### MMD9-ANA-41: Elective Subspecialty Placement

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Reflective Report + Logbook*

***Rotation/Module Description***

A supervised elective in an anaesthetic subspecialty of the trainee's choice, locally or through an approved external placement.

***Key Competencies Developed***

- Demonstrate advanced competence in a chosen anaesthesia subspecialty area.
- Reflect critically on the elective experience.
- Produce a placement report of specialist standard.

## IV. Community Medicine — Master of Medicine (Community Medicine)

The MMed (Community Medicine) trains general medical officers into specialist public-health physicians capable of leading district health management, disease-control programmes and health-policy development, directly addressing Eswatini's health-system-strengthening and UHC priorities.

### Year 1

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-COM-30 | Epidemiology and Biostatistics for Public Health | 30 | Written Exam + Data Analysis Assignment |
| MMD9-COM-31 | Health Systems and Primary Health Care | 30 | Written Exam + Assignment |
| MMD9-COM-32 | District Health Management I | 30 | Clinical/Management Examination |

#### MMD9-COM-30: Epidemiology and Biostatistics for Public Health

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Data Analysis Assignment*

***Rotation/Module Description***

Develops advanced epidemiological and biostatistical skills for population-level health analysis and surveillance.

***Key Competencies Developed***

- Design and conduct an epidemiological investigation.
- Apply advanced biostatistical methods to population health data.
- Interpret national and district health-surveillance data.

#### MMD9-COM-31: Health Systems and Primary Health Care

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Assignment*

***Rotation/Module Description***

Covers the structure, financing and management of health systems, with emphasis on primary health care as the foundation of Eswatini's health system.

***Key Competencies Developed***

- Analyse the structure and performance of Eswatini's health system.
- Apply primary-health-care principles to service planning.
- Evaluate health-system strengthening interventions.

#### MMD9-COM-32: District Health Management I

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical/Management Examination*

***Rotation/Module Description***

Introduces the trainee to district-level health management, including supervision of primary-care facilities.

***Key Competencies Developed***

- Participate in district health-management decision-making.
- Supervise primary-care facility performance.
- Apply resource-allocation principles at district level.

### Year 2

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-COM-33 | Environmental and Occupational Health | 35 | Written Exam + Assignment |
| MMD9-COM-34 | Communicable Disease Control (HIV/TB/NCD Programmes) | 35 | Written Exam + Programme Report |
| MMD9-COM-35 | Health Promotion and Behaviour Change | 35 | Written Exam + Assignment |

### MMD9-COM-33: Environmental and Occupational Health

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Assignment*

***Rotation/Module Description***

Covers environmental and occupational determinants of health and their management at population level.

***Key Competencies Developed***

- Assess environmental and occupational health hazards.
- Design interventions to mitigate environmental health risks.
- Apply relevant environmental-health legislation and standards.

### MMD9-COM-34: Communicable Disease Control (HIV/TB/NCD Programmes)

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Programme Report*

***Rotation/Module Description***

Covers the management of Eswatini's major communicable and non-communicable disease control programmes.

***Key Competencies Developed***

- Manage a communicable-disease control programme (HIV/TB) at district or national level.
- Design an integrated NCD-control intervention.
- Evaluate the effectiveness of disease-control programmes.

### MMD9-COM-35: Health Promotion and Behaviour Change

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Assignment*

***Rotation/Module Description***

Covers the theory and practice of health promotion and behaviour-change communication at population level.

***Key Competencies Developed***

- Design a health-promotion intervention grounded in behaviour-change theory.
- Evaluate the effectiveness of a health-promotion campaign.
- Apply community-engagement principles to health promotion.

## Year 3

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-COM-36 | Health Policy and Planning | 30 | Written Exam + Policy Brief |
| MMD9-COM-37 | Monitoring and Evaluation of Health Programmes | 30 | Written Exam + M&E Framework Assignment |
| MMD9-COM-38 | Field Epidemiology Placement | 30 | Fieldwork Report + Portfolio |

### MMD9-COM-36: Health Policy and Planning

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Policy Brief*

***Rotation/Module Description***

Covers the development, analysis and implementation of national health policy.

***Key Competencies Developed***

- Draft a health-policy brief addressing an identified national health priority.
- Analyse the implementation of an existing national health policy.
- Apply health-planning frameworks to resource-constrained settings.

### MMD9-COM-37: Monitoring and Evaluation of Health Programmes

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + M&E Framework Assignment*

***Rotation/Module Description***

Covers the design and application of monitoring-and-evaluation frameworks for health programmes.

***Key Competencies Developed***

- Design a monitoring-and-evaluation framework for a health programme.
- Analyse routine health-information-system data for programme improvement.
- Present M&E findings to inform programme management decisions.

### MMD9-COM-38: Field Epidemiology Placement

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Fieldwork Report + Portfolio*

***Rotation/Module Description***

A supervised field placement conducting an outbreak investigation or health-programme evaluation within Eswatini's health system.

***Key Competencies Developed***

- Conduct or contribute to a field outbreak investigation.
- Apply field-epidemiology methods under real-world conditions.
- Produce a field-investigation report to professional standard.

## Year 4

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-COM-39 | Senior Community Medicine Registrar Rotation | 30 | Portfolio + Management Examination |
| MMD9-COM-40 | Global Health and Health Systems Research | 30 | Written Exam + Research Assignment |
| MMD9-COM-41 | Elective Placement (Regional/International Health Agency) | 30 | Reflective Report + Logbook |

### MMD9-COM-39: Senior Community Medicine Registrar Rotation

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Portfolio + Management Examination*

***Rotation/Module Description***

Consolidates senior specialist responsibility across district and national health-management functions in preparation for independent consultant practice.

***Key Competencies Developed***

- Demonstrate consultant-level independent public-health decision-making.
- Lead multi-sectoral health-programme coordination.
- Contribute to national health-policy development processes.

### MMD9-COM-40: Global Health and Health Systems Research

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Research Assignment*

***Rotation/Module Description***

Covers global health governance, international health regulations and health-systems research methods relevant to Eswatini's regional and international health engagements.

***Key Competencies Developed***

- Analyse Eswatini's engagement with international health regulations and global health governance.
- Conduct health-systems research relevant to a national priority.
- Evaluate cross-border and regional health-cooperation initiatives.

### MMD9-COM-41: Elective Placement (Regional/International Health Agency)

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Reflective Report + Logbook*

***Rotation/Module Description***

A supervised elective placement with a regional or international health agency (e.g., WHO AFRO, SADC health desk) or an approved local equivalent.

***Key Competencies Developed***

- Demonstrate advanced competence in a chosen global/regional public-health area.
- Reflect critically on the elective experience.
- Produce a placement report of specialist standard.

## V. Internal Medicine — Master of Medicine (Internal Medicine)

The MMed (Internal Medicine) trains general medical officers into specialist internists capable of managing complex adult medical disease, particularly the dual HIV/NCD comorbidity burden central to Eswatini's health priorities.

### Year 1

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-INT-30 | General Internal Medicine I | 30 | Written Exam + Clinical (Long/Short Case) Examination |
| MMD9-INT-31 | Cardiology and Respiratory Medicine | 30 | Written Exam + Clinical Examination |
| MMD9-INT-32 | Endocrinology and Diabetes | 30 | Written Exam + Clinical Examination |

#### MMD9-INT-30: General Internal Medicine I

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Clinical (Long/Short Case) Examination*

***Rotation/Module Description***

Foundational specialist rotation in the assessment and management of complex adult medical disease, building on MBBS-level internal-medicine competence.

***Key Competencies Developed***

- Independently manage complex and multi-morbid adult medical patients.
- Formulate specialist-level differential diagnoses for undifferentiated presentations.
- Supervise junior colleagues in general medical ward management.

#### MMD9-INT-31: Cardiology and Respiratory Medicine

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Covers specialist assessment and management of cardiovascular and respiratory disease, including rheumatic heart disease and TB-related lung disease of regional significance.

***Key Competencies Developed***

- Manage complex cardiovascular disease to specialist standard.
- Manage complex respiratory disease, including TB-related lung disease.
- Interpret advanced cardiac and respiratory investigations.

#### MMD9-INT-32: Endocrinology and Diabetes

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Covers specialist management of diabetes mellitus and other endocrine disorders central to Eswatini's rising NCD burden.

***Key Competencies Developed***

- Manage complex diabetes and its complications to specialist standard.
- Manage other endocrine disorders independently.
- Lead a diabetes/endocrine outpatient clinic.

### Year 2

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-INT-33 | Nephrology | 35 | Written Exam + Clinical Examination |
| MMD9-INT-34 | Gastroenterology | 35 | Written Exam + Clinical Examination |
| MMD9-INT-35 | Infectious Diseases and HIV Medicine | 35 | Written Exam + Clinical Examination |

### MMD9-INT-33: Nephrology

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Covers specialist management of acute and chronic kidney disease, including HIV-associated nephropathy.

***Key Competencies Developed***

- Manage acute kidney injury and chronic kidney disease to specialist standard.
- Manage HIV-associated and other regionally relevant renal disease.
- Coordinate renal-replacement-therapy referral pathways.

### MMD9-INT-34: Gastroenterology

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Covers specialist management of gastrointestinal and hepatobiliary disease.

***Key Competencies Developed***

- Manage complex gastrointestinal and hepatobiliary disease independently.
- Interpret advanced gastroenterological investigations.
- Coordinate endoscopic and surgical referral pathways.

### MMD9-INT-35: Infectious Diseases and HIV Medicine

*Credits: 35 | Level: ESQF 9 | Notional Hours: 350 (Guided 140 / Independent 210) | End Assessment: Written Exam + Clinical Examination*

***Rotation/Module Description***

Covers specialist management of HIV, tuberculosis and other infectious diseases central to Eswatini's disease burden.

***Key Competencies Developed***

- Manage complex HIV disease and treatment failure to specialist standard.
- Manage complicated tuberculosis and HIV/TB co-infection.
- Lead an infectious-diseases/HIV specialist outpatient clinic.

## Year 3

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-INT-36 | Neurology | 30 | Clinical Examination |
| MMD9-INT-37 | Rheumatology and Haematology-Oncology Liaison | 30 | Clinical Examination |
| MMD9-INT-38 | Critical Care Medicine | 30 | Clinical Examination + Portfolio |

### MMD9-INT-36: Neurology

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination*

***Rotation/Module Description***

Covers specialist assessment and management of neurological disease.

***Key Competencies Developed***

- Localise and manage complex neurological presentations independently.
- Interpret neurological investigations (e.g., neuroimaging, EEG where available).
- Coordinate neurosurgical and rehabilitation referral pathways.

### MMD9-INT-37: Rheumatology and Haematology-Oncology Liaison

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination*

***Rotation/Module Description***

Covers specialist management of rheumatological disease and liaison management of haematological and oncological conditions.

***Key Competencies Developed***

- Manage complex rheumatological disease independently.
- Recognise and initiate management of haematological and oncological presentations.
- Coordinate oncology and haematology referral pathways.

### MMD9-INT-38: Critical Care Medicine

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination + Portfolio*

***Rotation/Module Description***

Consolidates the internist's role in managing the critically ill medical patient in high-care/ICU settings.

***Key Competencies Developed***

- Manage the critically ill medical patient requiring organ support.
- Lead medical input into multidisciplinary critical-care rounds.
- Mentor junior doctors in acute medical management.

## Year 4

| Code | Rotation/Module | Credits | End Assessment |
|---|---|---|---|
| MMD9-INT-39 | Senior Internal Medicine Registrar Rotation | 30 | Clinical Examination + Portfolio |
| MMD9-INT-40 | Geriatric Medicine | 30 | Clinical Examination |
| MMD9-INT-41 | Elective Subspecialty Placement | 30 | Reflective Report + Logbook |

### MMD9-INT-39: Senior Internal Medicine Registrar Rotation

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination + Portfolio*

***Rotation/Module Description***

Consolidates senior specialist responsibility across internal-medicine subspecialties in preparation for independent consultant practice.

***Key Competencies Developed***

- Demonstrate consultant-level independent internal-medicine decision-making.
- Lead multidisciplinary medical case conferences.
- Contribute to departmental clinical governance and mortality review.

### MMD9-INT-40: Geriatric Medicine

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Clinical Examination*

***Rotation/Module Description***

Covers the specialist assessment and management of the older adult with multi-morbidity and frailty.

***Key Competencies Developed***

- Manage complex multi-morbidity in older adults.
- Apply comprehensive geriatric assessment principles.
- Coordinate multidisciplinary care for frail older patients.

### MMD9-INT-41: Elective Subspecialty Placement

*Credits: 30 | Level: ESQF 9 | Notional Hours: 300 (Guided 120 / Independent 180) | End Assessment: Reflective Report + Logbook*

***Rotation/Module Description***

A supervised elective in an internal-medicine subspecialty of the trainee's choice, locally or through an approved external placement.

***Key Competencies Developed***

- Demonstrate advanced competence in a chosen internal-medicine subspecialty area.
- Reflect critically on the elective experience.
- Produce a placement report of specialist standard.

# CONTEXTUALISATION TO ESWATINI'S SPECIALIST HEALTH WORKFORCE PRIORITIES

| Identified National Need | Curriculum Response |
|---|---|
| Largest relative workforce gap in specialist/physician cadres (HLMA 2023) | All five MMed specialisations directly produce the specialist cadres this gap refers to |
| Paediatric HIV and malnutrition burden | MMed Paediatrics: Paediatric Infectious Diseases/HIV rotation, Community and Ambulatory Paediatrics |
| Maternal mortality and rural obstetric access | MMed Obstetrics & Gynaecology: High-Risk Obstetrics, Senior Labour Ward Management |
| Surgical-safety and peri-operative capacity | MMed Anaesthesiology: Trauma and Emergency Anaesthesia, Critical Care Medicine I & II |
| District health management and UHC delivery | MMed Community Medicine: District Health Management I, Health Policy and Planning |
| Dual HIV/NCD comorbidity burden | MMed Internal Medicine: Infectious Diseases and HIV Medicine, Endocrinology and Diabetes |
| Migration/non-return risk among specialists | In-country specialist training removes the extended foreign-training pathway associated with elevated non-return risk |

## RECOMMENDATIONS: PENDING INSTITUTIONAL EVIDENCE CHECKLIST

This document is structurally complete against all 11 ESHEC Programme Evaluation Standards (see Compliance Matrix). The following institutional artefacts — which depend on data, agreements or approvals that only LUE itself can generate — should be finalised and appended before final submission to ESHEC:

7. Professional-body/specialist-college endorsement letters for each of the five MMed specialisations (Standard 2).
8. Signed clinical-affiliation MOUs with named Eswatini hospitals and health facilities, sufficient in specialist case-volume and supervisory-capacity terms to deliver every rotation in each specialisation (Standard 6).
9. Named specialist staffing list, individual CVs, specialist registration confirmation and employment/affiliation contracts for each specialisation (Standard 7).
10. A dedicated MMed Needs Assessment Report (per specialisation or combined), including completed stakeholder consultation with the Ministry of Health, hospital departments and relevant specialist colleges (Standards 2 and 5).
11. A costed 3–5 year budget and enrolment-projection plan from LUE's Finance Office, covering all five specialisations (Standard 10).
12. LUE's institutional Postgraduate Research Regulations, Assessment Policy, Academic Regulations, and Ethical Use of Technology Policy, cross-referenced throughout this document, attached in full.

Once these items are appended, this Programme Submission Document constitutes a complete ESHEC submission package for the MMed programme across all five specialisations.

## STATEMENT OF CURRICULUM ORIGIN AND STANDARDS ALIGNMENT

This programme has been designed originally by Lincoln University of Eswatini's Faculty of Medicine, Dentistry and Allied Health Sciences and is not derived from, or reproduced from, the curriculum of any specific foreign institution. Its outcome domains are aligned with international norms for specialist medical postgraduate education, and its credit structure, module coding, admissions framework and assessment weightings are aligned with the Eswatini Qualifications Framework (ESQF) and ESHEC's Programme Approval Standard 10. This document builds directly on, and should be read together with, LUE's MBBS Needs Assessment Report and MBBS Curriculum Framework (the aligned undergraduate programme required by ESHEC Standard 2), and is subject to final review and approval by LUE's Academic Board and by the Eswatini Higher Education Council.